WHAT IS CLAIMED IS:

1. An optical scanner comprising:

a light deflector periodically reflecting a light beam emitted from a light source to periodically deflect said light beam; and

an imaging optical system having such a distortion characteristic that the product of a focal distance and a half angle of view defines an ideal image height for imaging said light beam deflected by said light deflector on an objective surface, wherein

said imaging optical system comprises:

a first cemented lens, formed by bonding a first lens and a second lens to each other, having negative refracting power;

a second cemented lens, formed by bonding a third lens and a fourth lens to each other, having positive refracting power; and

a fifth lens having positive refracting power

successively from an entrance side for said light beam to satisfy the following expressions (1) and (2):

$$\frac{L}{f} < 0.100 \qquad (1)$$

$$0.04 \leq \frac{r1}{r4} \leq 0.31 \qquad (2)$$

where

L represents the length between a plane of incidence of said first cemented lens and a plane of exit of said fifth lens along an optical axis direction,

f represents the composite focal distance of said first cemented lens, said second cemented lens and said fifth lens in the above expression (1),

r1 represents the radius of curvature of a refracting interface on the entrance side for said light beam in said first lens,

r4 represents the radius of curvature of a refracting interface on the entrance side for said light beam in said third lens in the above expression (2).

2. The optical scanner according to claim 1, wherein

said first lens and said second lens are essentially made of an optical material satisfying the following expression (4) on the basis of a partial Abbe's number ν defined in the following expression (3):

$$\nu = \frac{N-1}{N_{MIN} - N_{MAX}} \quad (3)$$

$$0.48 \leq \frac{\nu 1}{\nu 2} \leq 0.64 \quad (4)$$

where

N represents a refractive index with respect to the central wavelength of a working wave range of said light beam,

N_{MIN} represents a refractive index with respect to the lower limit of the working wave range of said light beam,

N_{MAX} represents a refractive index with respect to the upper limit of the working wave range of said light beam in the above expression (3),

ν1 represents the partial Abbe's number of said first lens,

ν2 represents the partial Abbe's number of said second lens in the above expression (4).

3. The optical scanner according to claim 2, wherein

said third lens and said fourth lens are essentially made of an optical material satisfying the following expression (5) on the basis of the partial Abbe's number ν defined in the following expression (3):

$$\nu = \frac{N-1}{N_{MIN} - N_{MAX}} \tag{3}$$

$$0.42 \leq \frac{\nu 4}{\nu 3} \leq 0.64 \tag{5}$$

where

N represents the refractive index with respect to the central wavelength of the working wave range of said light beam,

N_{MIN} represents the refractive index with respect to the lower limit of the working wave range of said light beam,

N_{MAX} represents the refractive index with respect to the upper limit of the working wave range of said light beam in the above expression (3),

ν3 represents the partial Abbe's number of said third lens,

ν4 represents the partial Abbe's number of said fourth lens in the above expression (5).

4. The optical scanner according to claim 3, wherein

said imaging optical system satisfies the following expression (6):

$$0.24 \leq \frac{|f1|}{f} \leq 0.35 \tag{6}$$

where f1 represents the focal distance of said first cemented lens in the above expression (6).

5. The optical scanner according to claim 4, wherein

said imaging optical system satisfies the following expression (7):

$$0.43 \leq \frac{f3}{f} \leq 0.67 \qquad (7)$$

where f3 represents the focal distance of said fifth lens in the above expression (7).

6. The optical scanner according to claim 5, wherein

another imaging optical system converging said light beam emitted from said light source only in the direction of the rotational axis of said light deflector and imaging said light beam on a reflecting surface of said light deflector is further provided on an optical path between said light source and said light deflector, and

said imaging optical system further comprises an anamorphic lens converging a light beam outgoing from said fifth lens in the direction of the rotational axis of said light deflector and imaging said light beam on said objective surface.

7. The optical scanner according to claim 6, wherein

said light beam has a central wavelength of around 405 nm, and said imaging optical system satisfies the following expression (2A):

$$0.04 \leq \frac{r1}{r4} \leq 0.17 \qquad (2A)$$

8. The optical scanner according to claim 7, wherein

said optical material satisfies the following expression (4A) with respect to said light beam having said central wavelength of around 405 nm:

$$0.48 \leq \frac{v1}{v2} \leq 0.58 \tag{4A}$$

9. The optical scanner according to claim 8, wherein

said optical material satisfies the following expression (5A) with respect to said light beam having said central wavelength of around 405 nm:

$$0.42 \leq \frac{v4}{v3} \leq 0.47 \tag{5A}$$

10. The optical scanner according to claim 9, wherein

said imaging optical system satisfies the following expression (6A) with respect to said light beam having said central wavelength of around 405 nm:

$$0.24 \leq \frac{|f1|}{f} \leq 0.32 \tag{6A}$$

11. The optical scanner according to claim 6, wherein

said light beam has a central wavelength of around 635 nm, and said imaging optical system satisfies the following expression (2B):

$$0.13 \leq \frac{r1}{r4} \leq 0.31 \tag{2B}$$

12. The optical scanner according to claim 11, wherein

said optical material satisfies the following expression (4B) with respect to said light beam having said central wavelength of around 635 nm:

$$0.59 \leq \frac{v1}{v2} \leq 0.64 \qquad (4B)$$

13. The optical scanner according to claim 12, wherein

said optical material satisfies the following expression (5B) with respect to said light beam having said central wavelength of around 635 nm:

$$0.48 \leq \frac{v4}{v3} \leq 0.64 \qquad (5B)$$

14. The optical scanner according to claim 13, wherein

said imaging optical system satisfies the following expression (6B) with respect to said light beam having said central wavelength of around 635 nm:

$$0.28 \leq \frac{|f1|}{f} \leq 0.33 \qquad (6B)$$

15. The optical scanner according to claim 6, wherein

said light beam has a central wavelength of around 785 nm, and said imaging optical system satisfies the following expression (2C):

$$0.15 \leq \frac{r1}{r4} \leq 0.22 \qquad (2C)$$

16. The optical scanner according to claim 15, wherein

said optical material satisfies the following expression (4C) with respect to said light beam having said central wavelength of around 785 nm:

$$0.61 \leq \frac{v1}{v2} \leq 0.64 \qquad (4C)$$

17. The optical scanner according to claim 16, wherein

said optical material satisfies the following expression (5C) with respect to said light beam having said central wavelength of around 785 nm:

$$0.57 \leq \frac{v4}{v3} \leq 0.64 \qquad (5C)$$

18. The optical scanner according to claim 17, wherein

said imaging optical system satisfies the following expression (6C) with respect to said light beam having said central wavelength of around 785 nm:

$$0.30 \leq \frac{|f1|}{f} \leq 0.35 \qquad (6C)$$